(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 29 July 2004 (29.07.2004)

PCT

(10) International Publication Number WO 2004/062584 A2

(51) International Patent Classification7:

A61K

(21) International Application Number:

PCT/US2004/000196

(22) International Filing Date: 6 January 2004 (06.01.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/439,224

10 January 2003 (10.01.2003)

- (71) Applicant (for all designated States except US): RE-GENTS OF THE UNIVERSITY OF COLORADO [US/US]; 4001 Discovery Drive, #390, Campus Box 588, Boulder, CO 80309 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): GARCEA, Robert, L. [US/US]; 2505 Pampas Court, Boulder, CO 803014 (US).
- (74) Agents: BURTON, Carol, W. et al.; Hogan & Hartson LLP, Suite 1500, 1200 17th Street, Denver, CO 80202 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THERAPEUTIC AND PROPHYLACTIC VACCINE FOR THE TREATMENT AND PREVENTION OF PAPILLO-MAVIRUS INFECTION

(57) Abstract: This invention provides compositions including a chimera of papillomavirus capsid polypeptide L2 and polypeptide including an immunotherapeutic epitope, and GST fusions thereof. The present invention also provides complexes comprising chimeras of papillomavirus L2 polypeptides non-covalently assocaited with papillomavirus L1 polypeptides, and GST fusions thereof. These compositions may be used to elicit immune responses in apatient to papillomavirus. Therapeutic and prophylactic vaccines for the prevention and treatment of viral infection, especially papillomavirus infectiona nd cervical cancers and warts associated therewith, made from compositions of this invention, are also disclosed. Nucleic acids and expression vectors coding for compositions of this invention are also disclosed.

